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**CLMPTO** 

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ST3Gal III.

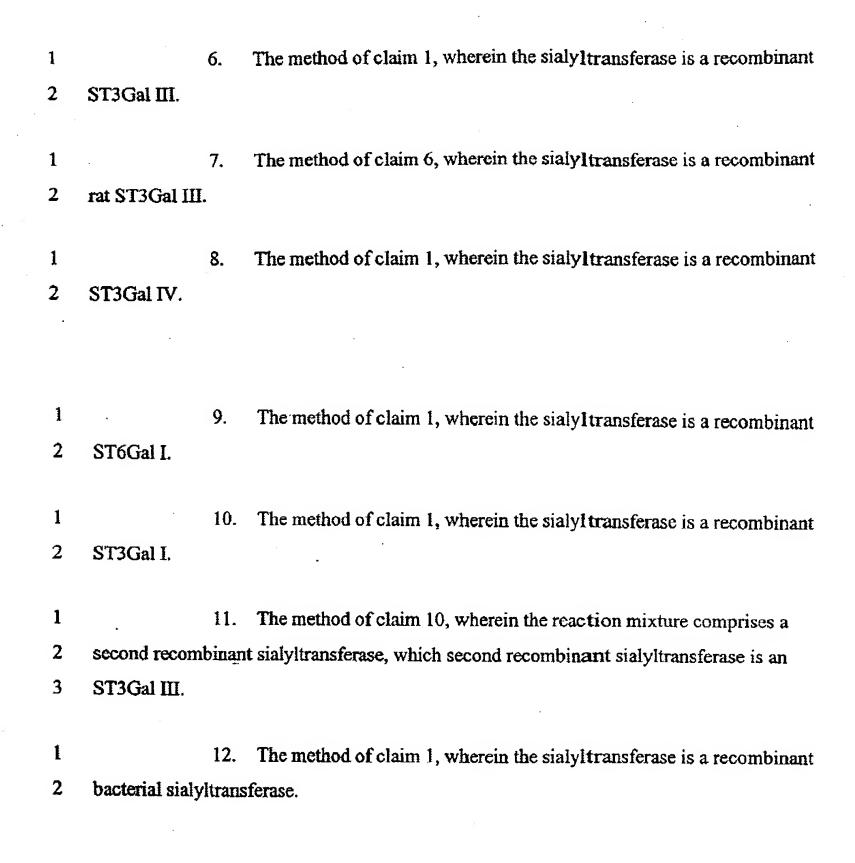
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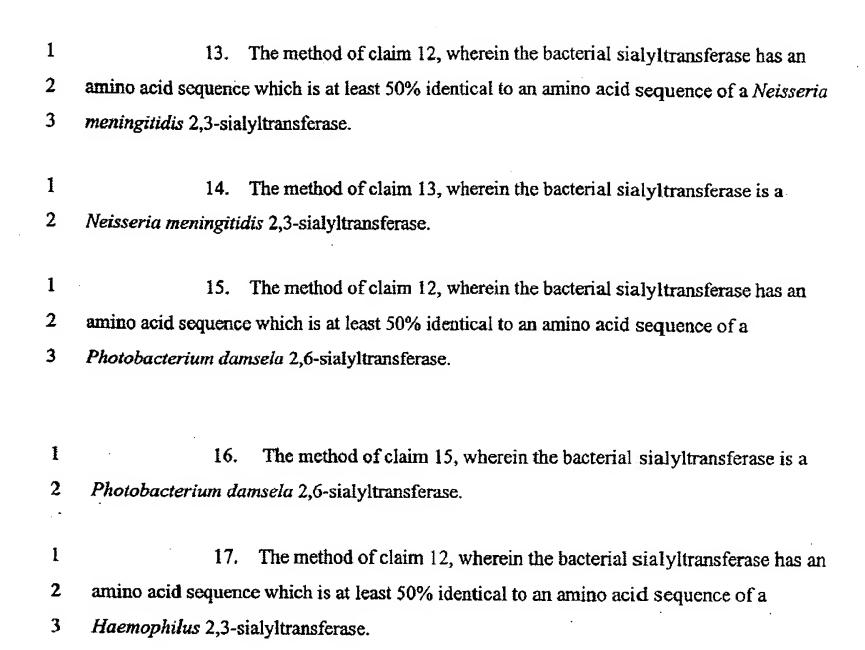
1. (Amended) A commercial-scale production method of sialylating a 1 saccharide group on a recombinant glycoprotein, the method comprising contacting a 2 saccharide group which comprises a galactose or N-acetylgalactosamine acceptor moiety 3 on a recombinant glycoprotein with a sialic acid donor moiety and a recombinant ST3 4 Gal III sialyltransferase in a reaction mixture which provides reactants required for 5 sialyltransferase activity for a sufficient time and under appropriate conditions to transfer 6 sialic acid from said sialic acid donor moiety to said saccharide group. 7 The method of claim 1, wherein the sialic acid donor moiety is CMP-2. l 2 sialic acid. 3. The method of claim 2, wherein the CMP-sialic acid is enzymatically I 2 generated in situ. 4. The method of claim 1, wherein the sialyltransferase is a recombinant 1 eukaryotic sialyltransferase which substantially lacks a membrane-spanning domain. 2

The method of claim 1, wherein the sialyltransferase includes a sialyl

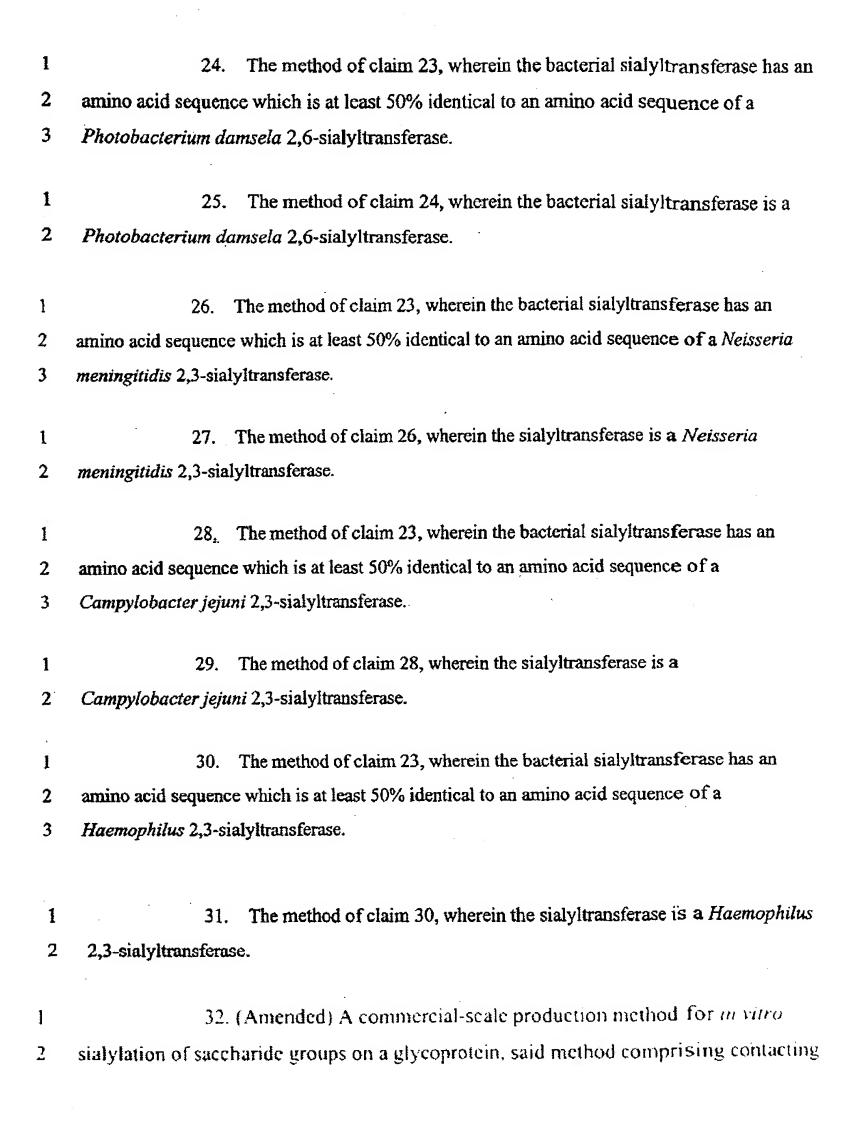
motif which has an amino acid sequence that is at least about 40% identical to a sialyl motif

from a sialyltransferase selected from the group consisting of ST3Gal I, ST6Gal I, and





1	18.	The method of claim 17, wherein the sialyltransferase is a Haemophilus
2	2,3-sialyltransferase.	
1	. 19.	The method of claim 12, wherein the bacterial sialyltransferase has an
2	amino acid sequence	which is at least 50% identical to an amino acid sequence of a
.3	Campylobacter jejuni 2,3-sialyltransferase.	
	20	The method of claim 19, wherein the sialyltransferase is a
2	Campylobacter jejuni 2,3-sialyltransferase.	
<b>.</b>	Campytooacter jejum 2,5 starytaatstetaso.	
1	21.	The method of claim 1, wherein the sialyltransferase is produced by
2	recombinant expression of a sialyltransferase in a host cell selected from the group	
3	consisting of an insect cell, a mammalian cell, and a fungal cell.	
	•	
1	22.	The method of claim 21, wherein the host cell is an Aspergillus niger
<b>2</b> .	cell.	· .
	·	
1		(Amended) A commercial-scale production method of sialylating a
2	saccharide group on a recombinant glycoprotein, the method comprising contacting a	
3	saccharide group which comprises a galactose or an N-acetylgalactosamine acceptor	
4	moiety on a recombinant glycoprotein with a sialic acid donor moiety and a bacterial ST3	
5	Gal III sialyltransferase in a reaction mixture which provides reactants required for	
6	sialyltransferase activity for a sufficient time and under appropriate conditions to transfer	
7	sialic acid from said sialic acid donor moiety to said saccharide group.	



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- 3 said saccharide groups with a ST3 Gal III sialyltransferase, a sialic acid donor moiety,
- 4 and other reactants required for sialyltransferase activity for a sufficient time and under
- 5 appropriate conditions to transfer sialic acid from said sialic acid donor moiety to said
- 6 saccharide group.
- 1 33. The method of claim 32, wherein the sialyltransferase is present at a concentration of between about 5-25 mU per mg of glycoprotein.
- 34. The method of claim 32, wherein the sialyltransferase is present at a concentration of between about 10-50 mU/ml of reaction mixture and the glycoprotein is present in the reaction mixture at a concentration of at least about 2 mg/ml.
- 35. The method of claim 32, wherein the method yields a glycoprotein having sialylation of at least about 80% of terminal galactose residues present on the saccharide groups.
- 1 36. The method of claim 32, wherein the sialyltransferase is a recombinant 2 sialyltransferase.

